

## Complete Summary

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### GUIDELINE TITLE

Inpatient management guidelines for people with diabetes.

### BIBLIOGRAPHIC SOURCE(S)

American Healthways. Inpatient management guidelines for people with diabetes. Nashville (TN): American Healthways, Inc; 2004 May. 20 p. [59 references]

### GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previously released version: American Healthways. Inpatient management guidelines for people with diabetes. Nashville (TN): American Healthways, Inc; 2002 Mar. 18 p.

## COMPLETE SUMMARY CONTENT

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## SCOPE

### DISEASE/CONDITION(S)

- Type 1 diabetes mellitus
- Type 2 diabetes mellitus
- Gestational diabetes mellitus

### GUIDELINE CATEGORY

Management

### CLINICAL SPECIALTY

Endocrinology  
Family Practice  
Internal Medicine  
Nursing  
Nutrition  
Obstetrics and Gynecology  
Pediatrics

#### INTENDED USERS

Advanced Practice Nurses  
Allied Health Personnel  
Dietitians  
Nurses  
Physician Assistants  
Physicians

#### GUIDELINE OBJECTIVE(S)

To provide hospitals and their medical staffs with a set of guidelines for assuring that patients with diabetes have inpatient outcomes similar, both clinically and fiscally, to those of patients without diabetes

Specific goals include:

- Identification of all patients with diabetes
- Identifying and addressing the special needs of patients with diabetes
- Improving outcomes by optimizing glycemic control
- Raising the level of awareness of the health care team with respect to the unique challenges of diabetes and current standards of care
- Striving for lengths of stay equal to those of patients without diabetes

#### TARGET POPULATION

Adults and children with diabetes mellitus admitted to hospitals

#### INTERVENTIONS AND PRACTICES CONSIDERED

Inpatient management of diabetes, including the following aspects:

1. Identification, initial assessment, and management plan
2. Optimal glycemic control
3. Medical nutrition therapy
4. Education and discharge planning
5. Optimal glycemic control for pregnancy

#### MAJOR OUTCOMES CONSIDERED

- Glycemic control
- Short-term and long-term diabetic complications
- Length of hospital stay

## METHODOLOGY

### METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Evidence in support of the guideline was developed through electronic searches of relevant literature.

### NUMBER OF SOURCE DOCUMENTS

Not stated

### METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

### RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

### METHODS USED TO ANALYZE THE EVIDENCE

Review

### DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

### METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus (Consensus Development Conference)

### DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

To promote improved inpatient diabetes care, American Healthways assembled a panel of primary care physicians, specialty physicians and other health care professionals representing private practice, health plan and institutional perspectives. This panel was charged with the development of these Inpatient Management Guidelines. Their initial recommendations were then submitted for review by American Healthways' Scientific Advisory Council and to a panel of selected faculty specialists at the Vanderbilt University Medical Center. Finally, the guidelines were modified and endorsed by a Consensus Conference of over 100 physicians and other health care professionals with similarly varied perspectives convened by American Healthways at Key Largo, Florida, in November 1998. Subsequently, in February 2002, May 2003, and May 2004 the American

Healthways' Scientific Advisory Committee and Medical Advisory Committee reviewed the document for needed revisions and updates. By endorsement of the committees, the revisions are reflected in this version of the guidelines.

#### RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

#### COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

#### METHOD OF GUIDELINE VALIDATION

Peer Review

#### DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The guideline panel's initial recommendations were submitted for review by the American Healthways, Inc. (formerly the Diabetes Treatment Centers of America [DTCA]) Scientific Advisory Council and to a panel of selected faculty specialists at the Vanderbilt University Medical Center. The guidelines were modified and endorsed by a Consensus Conference of over 100 physicians and other health care professionals with similarly varied perspectives convened by American Healthways, Inc. at Key Largo, Florida, in November, 1998. Subsequently, in February 2002, May 2003, and May 2004, the American Healthways Scientific Advisory Committee and Medical Advisory Committee reviewed the document for needed revisions and updates.

### RECOMMENDATIONS

#### MAJOR RECOMMENDATIONS

Identification, Initial Assessment, and Management Plan

Goal Statement: To identify all patients with diabetes, document attendant comorbidities/complications, and determine appropriate therapeutic goals.

|                | Intervention                                                                                    | Health Care Professional <sup>1</sup>   | Event/Frequency                                                          |
|----------------|-------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------|
| Identification | 1. Screening Protocol<br>Diabetes complications can be best avoided through early detection and | Admitting or emergency department nurse | On admission, pre-admission, or presentation to the emergency department |

|                                                                                                                         | Intervention                                                                                                                                                                                                                                                                                                                         | Health Care Professional <sup>1</sup>                                                                                      | Event/Frequency            |
|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                                                                                                                         | aggressive glycemic management. In addition, diabetes, whether diagnosed or not, is a significant determinant of a successful in-patient experience. Accordingly, hospital medical staffs are encouraged to adopt an appropriate protocol consistent with American Diabetes Association (ADA) screening guidelines for all patients. |                                                                                                                            |                            |
| The remainder of these guidelines is applicable only to those patients with a confirmed diagnosis of diabetes mellitus. |                                                                                                                                                                                                                                                                                                                                      |                                                                                                                            |                            |
| Initial Assessment and Exam                                                                                             | 1. History of diabetes management and assessment of Standards of Care status (see "Exhibit A - Baseline Diabetes Assessment" in the original guideline document).                                                                                                                                                                    | Physician/registered nurse (RN)/licensed practical nurse (LPN)/certified diabetes educator (CDE)/registered dietician (RD) | On admission/pre-admission |
|                                                                                                                         | 2. Documentation of symptoms of diabetes-related comorbidities or complications                                                                                                                                                                                                                                                      | Physician/RN/LPN/CDE/RD                                                                                                    | On admission/pre-admission |

|                  | Intervention                                                                                | Health Care Professional <sup>1</sup> | Event/Frequency                                                        |
|------------------|---------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------------------------------------------|
|                  | (see "Special Considerations" below).                                                       |                                       |                                                                        |
|                  | 3. Physical exam with special emphasis on diabetes-associated and other pertinent findings. | Physician                             | On admission/pre-admission                                             |
| Laboratory Tests | 1. Serum creatinine                                                                         | Physician                             | On admission/pre-admission                                             |
|                  | 2. Electrocardiogram (EKG)                                                                  | Physician                             | On admission/pre-admission                                             |
|                  | 3. Urinalysis                                                                               | Physician                             | On admission/pre-admission                                             |
|                  | 4. Plasma glucose (PG)*                                                                     | Physician                             | On admission/pre-admission or presentation to the emergency department |
|                  | 5. Glycated hemoglobin (A1c)                                                                | Physician                             | On admission/pre-admission unless documented within previous one month |
|                  | 6. Lipid profile                                                                            | Physician                             | On admission/pre-admission unless documented within previous one month |

<sup>1</sup>In consultation with patient/caregiver

\*Blood glucose meters for finger-stick testing use capillary (whole blood) samples but, with few exceptions, are calibrated to display the results in plasma values.

### Special Considerations

1. Insulin pump. Abrupt or unplanned alteration of pump regimen can result in rapid deterioration of glycemic control, resulting in acute complications (diabetic ketoacidosis or hypoglycemia) and adverse outcomes. Accordingly, any change in regimen should only be ordered by, or in consultation with, the primary diabetes care physician.
2. Pregnancy. Lack of optimal glycemic control in pregnancy has been shown to cause significant and life-threatening complications to mother and child. Accordingly, consultation\* should be obtained with any admission of a pregnant patient with diabetes.
3. Coronary and Cerebral Vascular Disease. Early and optimal glycemic control may improve outcomes in patients with acute myocardial infarction, stroke/transient ischemic attack, percutaneous angioplasty, coronary stent placement, and coronary artery bypass. Accordingly, any patient admitted with diabetes and one of these diagnoses may benefit from optimal glycemic management and may benefit from consultation.\* See the "Optimal Glycemic Control" section, below, for further information concerning diabetes control.
4. Infectious Disease. Poorly controlled diabetes has been shown to cause significant impairment of host defense mechanisms in all infections. Accordingly, optimal glycemic control is paramount in the successful management of the infected patient, and consultation\* may be indicated.
5. Inpatient Surgery. Optimal glycemic control will reduce the incidence of post-operative complications and, therefore, patients with diabetes having inpatient surgery may benefit from consultation.\* See the "Optimal Glycemic Control" section, below, for further information concerning diabetes control.
6. Pediatrics. The tendency toward labile glucose values and special considerations related to managing diabetes in pediatric patients may result in compromised outcomes and therefore, these patients may benefit from consultation.\*
7. Diabetic Ketoacidosis. Since diabetic ketoacidosis is a serious condition that requires intensive management, consultation with patient's primary diabetes physician should be considered.

\*In these situations, consultation should be with a physician who, through experience and training, has demonstrated competence in the care of people with diabetes in the acute care setting. This may be the patient's primary care physician.

## Optimal Glycemic Control

Goal Statement: To achieve the best glycemic control possible given the clinical situation, but in no event should plasma glucose values be allowed to exceed upper glycemic targets as indicated in the original guideline document without assessment and/or intervention.\*

| Upper Limits For Glycemic Targets for Non-Pregnant Adults* | Intensive Care Unit | Non-Critical Care Units |                             |
|------------------------------------------------------------|---------------------|-------------------------|-----------------------------|
|                                                            | 110mg/dL            | (Preprandial) 110mg/dL  | (Maximum Glucose) 180 mg/dL |

\*Evidence regarding the risks of hyperglycemia in the hospitalized patient and benefits of aggressive management has been obtained in studies of adult patients with a variety of acute and chronic medical

conditions. It is not known whether these same risks and benefits apply to children. Careful judgment must be used in the application of the upper limits for glycemic targets in the pediatric population.

|             | Intervention                                                                                            | Health Care Professional <sup>1</sup> | Event/Frequency                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|---------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Monitoring  | 1. A1c                                                                                                  | Physician                             | On admission, unless documented within previous one month                                                                                                                                                                                                                                                                                                                                                                                    |
|             | 2. Bedside plasma glucose monitoring <sup>#</sup> , recorded on an appropriate flow sheet <sup>##</sup> | Physician/Nurse/Lab                   | <ul style="list-style-type: none"> <li>A minimum of 4 times per day: <ul style="list-style-type: none"> <li>-Before meals and bedtime for patients orally fed;</li> <li>-Every 4 to 6 hours during nothing by mouth (NPO) status</li> </ul> </li> <li>Hourly monitoring for patients treated with continuous intravenous insulin infusion therapy until values are stable, then consider reducing frequency to every 2 to 3 hours</li> </ul> |
|             | 3. Blood glucose review                                                                                 | Physician                             | Daily <sup>###</sup>                                                                                                                                                                                                                                                                                                                                                                                                                         |
|             | 4. Alert values reported to physician                                                                   | Nurse/Lab                             | PG <60 mg/dL, or per hypoglycemia treatment order, PG >300 mg/dL, or by physician specification                                                                                                                                                                                                                                                                                                                                              |
| Maintenance | 1. Reassess/adjust                                                                                      | Physician                             | <ul style="list-style-type: none"> <li>On non-critical care units,</li> </ul>                                                                                                                                                                                                                                                                                                                                                                |



|  | Intervention                                                                                                  | Health Care Professional <sup>1</sup> | Event/Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--|---------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | regimen*                                                                                                      |                                       | <p>adjustments in the diabetes regimen are often needed to maintain PG values below the upper limits for glycemic targets. (The use of "sliding scale" insulin coverage as the sole treatment of hyperglycemia has been shown to be ineffective.)</p> <ul style="list-style-type: none"> <li>• During intensive care situations, continuous intravenous (IV) insulin infusion is often required to maintain PG values below the upper limits for glycemic targets.</li> </ul> |
|  | 2. Consultation** with an endocrinologist or a physician with recognized expertise in diabetes inpatient care | Attending Physician                   | <p>Should be considered when:</p> <ol style="list-style-type: none"> <li>1. PG &gt;300 mg/dL or &lt;70 mg/dL on two occasions within 24 hours despite intervention</li> <li>2. Major surgery</li> </ol>                                                                                                                                                                                                                                                                       |

|               | Intervention                      | Health Care Professional <sup>1</sup> | Event/Frequency                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------|-----------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                                   |                                       | <ol style="list-style-type: none"> <li>3. Diabetic ketoacidosis (DKA)</li> <li>4. Hyperosmolar hyperglycemic state (HHS)</li> <li>5. Severe or recurrent hypoglycemia or neuroglycopenic symptoms</li> <li>6. Acute macrovascular events</li> <li>7. Serious infections or non-healing wounds</li> </ol> <p>Should be obtained:</p> <ol style="list-style-type: none"> <li>1. Pump therapy</li> <li>2. Pregnancy</li> </ol> |
| Order Sets*** | 1. Hypoglycemia Treatment Order   | Physician/Nurse                       | PG < 70 mg/dL                                                                                                                                                                                                                                                                                                                                                                                                               |
|               | 2. Continuous IV Insulin Infusion | Physician/Nurse                       | <p>Examples may include:</p> <ul style="list-style-type: none"> <li>• DKA or HHS</li> <li>• Critically ill</li> <li>• Type 1 and type 2 diabetes and NPO for &gt;12 to 24 hours</li> <li>• Major or minor surgery and PG &gt;150 mg/dL</li> <li>• Acute myocardial</li> </ul>                                                                                                                                               |

|  | Intervention                   | Health Care Professional <sup>1</sup> | Event/Frequency                                                                                                                     |
|--|--------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
|  |                                |                                       | infarction and PG >180 mg/dL <ul style="list-style-type: none"> <li>• Women with hyperglycemia during labor and delivery</li> </ul> |
|  | 3. Perioperative Order         | Physician/Nurse                       | Pre-admission or as soon as possible prior to surgery                                                                               |
|  | 4. External Insulin Pump Order | Physician/Nurse                       | Initiation and management                                                                                                           |

<sup>1</sup>In consultation with patient/caregiver

#Blood glucose meters for finger-stick testing use capillary (whole blood) samples, but, with few exceptions, are calibrated to display the results in plasma values.

##In order to assure effective communication of plasma glucose values among all members of the care team, a flow sheet should be developed and incorporated in the medical record for all patients.

###Adjustment of therapy is indicated if maximum preprandial PG > 110 mg/dL and maximum postprandial PG >180mg/dl are reoccurring. Intensive monitoring (>4 x daily) may be required under special circumstances as post myocardial infarction (MI), total parenteral nutrition (TPN), steroid therapy, etc.

\*Regimen includes nutrition, activity, medication, and other therapeutic modalities. If insulin sliding scales are utilized, it is recommended that a hospital protocol be developed. A subcutaneous sliding scale insulin regimen should be used in combination with a scheduled insulin and/or oral agent regimen.

\*\*In these situations, consultation should be with a physician who, through experience and training, has demonstrated competence in the care of people with diabetes in the acute care setting. This may be the primary care physician or a consultant.

\*\*\*Hospital medical staffs are encouraged to develop and implement appropriate routine order sets for people with diabetes.

## Medical Nutrition Therapy

Goal Statement: To optimize glycemic status, the nutritional needs of every person with diabetes admitted to the hospital will be assessed. A nutritional plan will be developed by a registered dietitian for approval by the physician.

|  | Intervention | Health Care Professional <sup>1</sup> | Event/Frequency |
|--|--------------|---------------------------------------|-----------------|
|--|--------------|---------------------------------------|-----------------|

|                                           | Intervention                                                       | Health Care Professional <sup>1</sup>   | Event/Frequency                          |
|-------------------------------------------|--------------------------------------------------------------------|-----------------------------------------|------------------------------------------|
| Establishment, Monitoring and Maintenance | 1. Initial specific nutritional plan for the patient with diabetes | Physician and RD                        | On admission                             |
|                                           | 2. Comprehensive nutritional assessment                            | RD and Physician                        | Prior to or within 24 hours of admission |
|                                           | 3. Reassessment/regimen adjustment                                 | RD and Physician                        | Daily or as indicated                    |
|                                           | 4. Discharge nutritional plan                                      | RD and Physician                        | Prior to discharge                       |
|                                           | 5. Discharge instructions and follow-up plan                       | RD, CDE, RN, Case Manager, or Physician | At discharge                             |

<sup>1</sup>In consultation with patient/caregiver

### Education and Discharge Planning

Goal Statement: To identify and correct both knowledge and self-care skills deficiencies and to establish an optimal transition into the post-hospital management of the patient

|                         | Intervention                                                                                                       | Health Care Professional <sup>1</sup>             | Event/Frequency          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------|
| Assessment              | 1. Baseline diabetes assessment*                                                                                   | Physician, RN, CDE, or RD; with patient/caregiver | On admission             |
| Patient Management Plan | 1. Development of patient education plan to include, at a minimum, diabetes survival skills** and initiation/arran | Physician, RN, CDE, and patient and/or caregiver  | Throughout hospital stay |

|                                        | Intervention                                                                                                                     | Health Care Professional <sup>1</sup>             | Event/Frequency                         |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------|
|                                        | gement of outpatient plan to address identified deficiencies***                                                                  |                                                   |                                         |
| Patient/Caregiver Skills Demonstration | 1. Successful demonstration of patient glucose monitoring                                                                        | RN, CDE, LPN                                      | Minimum of two times prior to discharge |
|                                        | 2. Successful demonstration of insulin administration, if indicated                                                              | RN, CDE, LPN                                      | Minimum of two times prior to discharge |
|                                        | 3. Successful demonstration of foot inspection                                                                                   | RN, CDE, LPN                                      | One time prior to discharge             |
| Diabetes Follow-up                     | 1. Patient standards of care**** status and outpatient education plan given to patient and reported to primary diabetes provider | Physician, RN, CDE, or RD; with patient/caregiver | Prior to discharge                      |
|                                        | 2. Follow-up diabetes management appointment recommended or arranged                                                             | Physician, RN, CDE or RD; with patient/caregiver  | Prior to discharge                      |

<sup>1</sup> In consultation with patient/caregiver

\*See Exhibit A - "Baseline Diabetes Assessment" in the original guideline document

\*\*See Exhibit B - "Diabetes Survival Skills" in the original guideline document

\*\*\*See Exhibit C - "National Standards for Diabetes Education Curriculum" in the original guideline document

\*\*\*\* See Exhibit D - "Standards of Care" in the original guideline document

## Optimal Glycemic Control For Pregnancy

(Gestational Diabetes Mellitus\*, Type 1 Diabetes and Pregnancy\*\*, Type 2 Diabetes and Pregnancy\*\*)

Goal Statement: To achieve and maintain euglycemia before and throughout pregnancy. Euglycemia is defined as:

Pre-labor: Fasting plasma glucose  $\leq 90$  mg/dL; One hour postprandial plasma glucose  $< 120$  mg/dL; A1c  $< 6.0\%$  during all trimesters

Labor and Delivery: Plasma glucose  $< 100$  mg/dL

|             | Intervention                                      | Health Care Professional <sup>1,2</sup> | Event/Frequency                                                                                |
|-------------|---------------------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------|
| Monitoring  | 1. A1c with normal range in pregnancy established | Physician                               | On admission                                                                                   |
|             | 2. Finger stick plasma glucose                    | Physician/Nurse/Lab                     | Before and one hour after each meal, at bedtime, and at 3:00 am                                |
|             | 3. Plasma glucose review                          | Physician                               | Daily <sup>#</sup>                                                                             |
|             | 4. Alert values reported to physician             | Nurse/Lab                               | PG $< 55$ mg/dL, or $> 150$ mg/dL                                                              |
| Maintenance | 1. Reassess/adjust regimen                        | Physician                               | Pre-prandial $< 60$ mg/dL or $> 90$ mg/dL. One hour after meals $< 100$ mg/dL or $> 120$ mg/dL |

|            |                                                                                                   |                 |                            |
|------------|---------------------------------------------------------------------------------------------------|-----------------|----------------------------|
| Order Sets | 1. Gestational diabetes mellitus (GDM), Diet Controlled                                           | Physician/Nurse | On admission               |
|            | 2. GDM, Insulin Requiring***                                                                      | Physician/Nurse | On admission               |
|            | 3. Type 1 Diabetes and Pregnancy***                                                               | Physician/Nurse | On admission               |
|            | 4. Type 2 Diabetes and Pregnancy***                                                               | Physician/Nurse | On admission               |
|            | 5. Labor and Delivery for Types 1 and 2***                                                        | Physician/Nurse | On admission               |
|            | 6. Labor and Delivery for GDM***                                                                  | Physician/Nurse | On admission               |
|            | 7. Post-Partum Care and Insulin Dosing***<br>a. For nursing mothers<br>b. For non-nursing mothers | Physician/Nurse | Immediately after delivery |
|            | 8. Neonatal Care for Infants of Diabetic Mothers                                                  | Physician/Nurse | Immediately after delivery |
|            | 9. Hyperemesis Gravidarum and Diabetes                                                            | Physician/Nurse | On admission               |

<sup>1</sup> In consultation with patient/caregiver

<sup>2</sup> Consultation with an endocrinologist/diabetologist and/or a high-risk obstetrician is strongly recommended for admission of a pregnant diabetic.

# To assure effective communication of plasma glucose values among all members of the care team, a flow sheet should be developed and incorporated in the medical record for all patients.

\*Gestational diabetes is diagnosed when two or more of the venous plasma values following a 100-gram glucose load (after an overnight fast of between 8 to 14 hours and at least three days of unrestricted diet of over 150 grams of carbohydrates) are exceeded: Fasting: 95 mg/dL; One hour: 180 mg/dL; Two hours: 155 mg/dL; Three hours: 140 mg/dL

\*\*Ideally, plasma glucose control should be established before pregnancy and is defined as A1c <4 standard deviations (SDs) above the mean of a normal population (using Diabetes Control and Complications Trial [DCCT] normal range of <6.01%: 4SD = A1c <7.0%)

\*\*\*Order should include specific instructions for management of hypoglycemia.

## CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The recommendations offered in the original guideline document are based on peer-reviewed scientific publications and the collective expertise of the physicians participating in the consensus conference.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

- Appropriate inpatient management of diabetes mellitus
- Optimized glycemic control
- Reduction in length of hospital stay

### POTENTIAL HARMS

Not stated

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

- Variation from this guideline is always acceptable if, in the opinion of the attending physician, individual circumstances require it. While standards are intended to be rigid and mandatory - making exceptions rare and difficult to justify - guidelines are more flexible, although they should be followed in



- most cases. Guidelines can be tailored to fit individual needs that are influenced by the patient, setting, resources and other factors. Deviations can be justified by individual circumstances. Options are intended to be neutral. They merely note the interventions available to practitioners.
- These guidelines reflect the best thinking of the physicians and other health care professionals in attendance at the Consensus Conference and at the review/revision during the 2002, 2003 and 2004 Medical Advisory and Scientific Advisory Committee meetings. The specifics of implementing these guidelines, however, should be determined by individual hospitals and their medical staffs.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Getting Better  
Living with Illness

### IOM DOMAIN

Effectiveness  
Patient-centeredness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

American Healthways. Inpatient management guidelines for people with diabetes. Nashville (TN): American Healthways, Inc; 2004 May. 20 p. [59 references]

### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

1999 (revised 2004 May)

### GUIDELINE DEVELOPER(S)

American Healthways, Inc - Public For Profit Organization

## GUIDELINE DEVELOPER COMMENT

To promote improved inpatient diabetes care, American Healthways, Inc. (formerly the Diabetes Treatment Centers of America [DTCA]) assembled a panel of primary care physicians, specialty physicians and other health care professionals representing private practice, health plan and institutional perspectives. These guidelines were modified and endorsed by a Consensus Conference of over 100 physicians and other health care professionals with similarly varied perspectives, convened by American Healthways, Inc. at Key Largo, Florida, in November, 1998. Subsequently, in February 2002, the American Healthways Scientific Advisory Committee and Medical Advisory Committee reviewed the document for needed revisions and updates. By endorsement of the committees, the revisions are reflected in this version of the guidelines.

## SOURCE(S) OF FUNDING

American Healthways, Inc.

## GUIDELINE COMMITTEE

The original draft of the guideline was developed by a Medical Steering Committee consisting of physicians representing clinical practice, health plan medical directors, and hospital-based program medical directors.

## COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Members of the Original Steering Committee: Kent Corral, MD; Frank DiTirro, MD; Daniel Duick, MD; Leonard Mastbaum, MD; Brendan O'Malley, MD; Julio Pita, MD; James Pope, MD; William Rush, MD

The draft was then submitted to the 100-plus physicians attending the consensus conference for review, modification, and adoption. The final version represents the work of the consensus conferees, all of whom are identified within the original guideline document.

Members of the 2002 Review/Revision: Charles H. Booras, MD; John Dixon, MD; Marjorie King, MD; Howard Lilienfeld, MD, FACP, FACE; Leonard Mastbaum, MD; Allen J. Naftilan, MD; James E. Pope, MD; F. David Rollo, MD, PhD, FACC, FACNP; William E. Rush, MD; Robert E. Sevier, MD; Roger Shell, MD; Fred G. Toffel, MD

Members of the 2003/2004 Review/Revision: John Anderson, MD; Charles Booras, MD; Richard Chung, MD; Joseph Finkelstein, MD; Ken Haver, MD; Lois Jovanovic, MD, FACP, CAN; Marjorie King, MD; Howard Lilienfeld, MD, FACP, FACE; Rod Lorenz, MD; Leonard Mastbaum, MD; Alan Naftilan, MD; Julio Pita, MD; James Pope, MD; David Rollo, MD, PhD, FACC, FACNP; William Rush, MD; Gerald Schulman, MD; Robert Sevier, MD; Fred Toffel, MD

## FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

## GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previously released version: American Healthways. Inpatient management guidelines for people with diabetes. Nashville (TN): American Healthways, Inc; 2002 Mar. 18 p.

## GUIDELINE AVAILABILITY

Electronic copies: Not available at this time.

Print copies: Available from American Healthways, Inc., 3841 Green Hills Village Drive, Nashville, TN 37215.

## AVAILABILITY OF COMPANION DOCUMENTS

None available

## PATIENT RESOURCES

None available

## NGC STATUS

This summary was completed by ECRI on June 29, 1999. The information was verified by the guideline developer as of July 30, 1999. This summary was updated by ECRI on July 17, 2002. The information was verified by the developer on August 13, 2002. This NGC summary was updated again on November 9, 2004 and most recently on January 12, 2005.

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